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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,244	11/17/2003	Rakesh Vig	VTI-114.8B(CIP)	4986

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EXAMINER

ANGEBRANDT, MARTIN J

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,244

Applicant(s)

VIG ET AL.

Examiner

Martin J. Angebranndt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4,6,9, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, R₆, R₇, R₈, and R₉ should be alkyl groups, the combination of these with the nitrogen makes the N substituent an alkylamino group.

In claims 6, 9 and 23, please replace any acronyms (ie. TMG, DMEA ..Bis-Tris, BES, polyHEMA, PVA,...) with complete chemical names. The applicant should submit evidence showing the correspondence between the acronyms and the chemical names. These acronyms may also correspond to other compounds than the applicant intends or may change over time.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 2 and 3 rejected under 35 U.S.C. 102(b) as being fully anticipated by Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002).

See table 1, where R is n-propyl in the formula of figure 1.

The examiner notes that the applicant is accorded only the filing date of the application 10/641784 (08/15/2003) for this compound as it is not described in the 10/418898 application.

6. Claims 2 and 3 rejected under 35 U.S.C. 102(e) as being fully anticipated by Brown et al. WO 02/096896.

See table 2, where R on page 29.

The examiner notes that the applicant is accorded only the filing date of the application 10/641784 (08/15/2003) for this compound as it is not described in the 10/418898 application.

7. Claims 2 and 3 rejected under 35 U.S.C. 102(b) as being fully anticipated by Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", presented at the 28th annual American society for photobiology Meeting July 1-6, 200, San Francisco, CA, Abstract 388 (abstract enclosed) . downloaded on 06/06/2005 from

http://www.kumc.edu/POL/ASP_Home/Meetings/Annual2000/Monday/view_abstract388.html

See abstract, where the methyl moieties of methylene blue are replaced with propyl.

This rejection is over the disclosure at the meeting held in the US in 2000.

8. Claims 4 and 6 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Yamada et al. 63-187154.

Yamada et al. 63-187154 teaches dyes including phenothiazine dyes embraced by the formula 2, where , Y is S, R₁ – R₆ may be H, alkyl, alkoxy or nitro and R₇ – R₁₀ are H or alkyl

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and X is a halogen. Example 1 teaches Methylene Blue together with Ethylene Diamine Tetraacetic Acid (EDTA). Example 2 uses azure B. Examples are in the lower right hand column of page 2 and the formulae are in the upper left column of page 2.

9. Claims 2-7, 14 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. JP 63-187154, in view of Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002).

It would have been obvious to use other alkyl groups, such as propyl disclosed by Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002), in place of the methyl groups of the methylene blue in the example of Yamada et al. 63-187154 with a reasonable expectation of success based upon the formula 2.

10. Claims 4, 6, 8, 9 and 22-24 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Karasawa et al. JP 55-079441.

Karasawa et al. JP 55-079441 in example 3 uses methylene blue in PVA together with an electron donative amine (triethanolamine). The use of polymeric amines shown on page 3 as electron donative agents, particularly formulae VII and VIII. These are used for recording optical information.

11. Claims 4, 6, 8-13 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karasawa et al. JP 55-079441.

It would have been obvious to one skilled in the art to modify the cited example by using other disclosed amines, including the polymeric amines disclosed on page 3, with a reasonable

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expectation of forming a useful optical recording medium based upon the disclosure of equivalence.

12. Claims 2-14 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karasawa et al. JP 55-079441, in view of Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002).

13.

In addition to the basis provided above, it would have been obvious to use other alkyl groups, such as propyl disclosed by Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002), in place of the methyl groups of the methylene blue used in the example of Karasawa et al. JP 55-079441 with a reasonable expectation of success based upon the direction to thionine dyes within Karasawa et al. JP 55-079441.

14. Claims 1-3, 14-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. '484, in view of Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002).

Smith et al. '484 teach the use of various phenothiazines including methylene blue and toluidine blue O in the copy prevention of optical recording media. (cols. 11 and 12). The substrate is provided with reflective layer (156) and a copy protection layer (160) (9/14-44).

It would have been obvious to use other alkyl groups, such as propyl disclosed by Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem.

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Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002), in place of the methyl groups of the methylene blue used by Smith et al. '484 with a reasonable expectation of success.

15. Claims 1-3,14-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selinfreund et al. WO 02/03386, in view of Smith et al. '484 and Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002).

Selinfreund et al. WO 02/03386 teaches with respect to figure 8, the optical recording medium where the light sensitive materials which affects authentication being provided over the entire medium, , on one surface of the medium or at predetermined areas. (page 25-26). An embodiment where the security dye was coated on a CD is disclosed. (29/24-26) Examples describes a medium provided with authentication software. (pages 32-34). The other examples are similar. The use of methylene blue with DVD media is disclosed. in table 1 on page 21. Figure 1 shows the media written and read from the same side. Figure 4 shows the substrate with the light sensitive layer (400) disposed therein. The pits and lands are coated with a reflective layer (240) and a protective layer (235). (13/1+, 22/29-23/12). The light sensitive (400) may be placed at any location on or in the medium where it affects the laser (22/25-28).

It would have been obvious to one skilled in the art to art to modify the embodiment of figure 8 by placing the reactive layer adjacent the pits and reflective layer as taught by Smith et al. '484 with a reasonable expectation of providing the authentication desired based upon the disclosure to place the layer anywhere in the medium where it affects the laser beam as well as to use other alkyl groups, such as propyl disclosed by Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website

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posting 1/28/2002), in place of the methyl groups of the methylene blue used by Smith et al. '484 and Selinfreund et al. WO 02/03386 with a reasonable expectation of success.

16. Claims 1-15 and 21-24 are rejected under 35 U.S.C. 102(e) as being fully anticipated by Vig et al. '088.

Vig et al. '088 teaches propylene blue in example 1 (MB-3), which is used together with poly-HEMA and Bis-Tris. Example 2 is similar, but uses a different binder. Example 4 uses methylene blue and a polymeric ETA. The placement of these on the disc is described further on pages 7 and 8, including its use as a security material.

17. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vig et al. '088.

It would have been obvious to one skilled in the art to modify the examples cited by using the media described with the authentication processes disclosed with a reasonable expectation of success based upon the disclosure to do so.

18. Claims 1-3, 14-15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selinfreund et al. '631, in view of Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002).

Selinfreund et al. '631 teaches in claims 36-52, the optical recording medium where the light sensitive materials which affects authentication being provided over the entire medium which is then coated with a reflective layer. Section [0053] describes a medium provided with authentication software. The use of methylene blue with DVD media is disclosed in table 1 on page 7. Figure 1 shows the media written and read from the same side.

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It would have been obvious to one skilled in the art to modify the embodiment of claims 36-52 by using other alkyl groups, such as propyl disclosed by Mellish et al. "In vitro photodynamic activity of a series of methylene blue analogues", Photochem. Photobiol., Vol 75(4) pp. 392-397 (website posting 1/28/2002), in place of the methyl groups of the methylene blue used by Selinfreund et al. '631 with a reasonable expectation of success.

19. Claims 4,6 and 8 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Binka et al. '047.

See example 5 (col. 11/lines 15-43)

20. Claims 4,6 and 8 are rejected under 35 U.S.C. 102(e) as being fully anticipated by Cumpston et al. '228.

See example 9 (col. 29/lines 16-24)

21. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

22. Claims 1-24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/641,784 (US 2004/0110088). Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matters overlaps

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and it would have been obvious to use the propylene blue compounds based upon the direction in claims 8 to the substituents being propyl or hexyl.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The provisional nature of this rejection may be withdrawn without prejudice and the application has been allowed and the issue fee paid.

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Selinfreund et al. '626, figure 4 teach the optical recording medium with layer 66 atop the embossed information.

Selinfreund et al. '593, figure 4 teach the optical recording medium with layer 66 atop the embossed information.

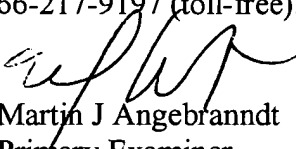
Selinfreund et al. '124 teach two reflective layers sandwiching the copy protection material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebrannndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Martin J Angebrannndt
Primary Examiner
Art Unit 1756

6/7/05